



Volunteer Lake Assessment Program Individual Lake Reports

ROUND POND, LYMAN, NH

MORPHOMETRIC DATA

Watershed Area (Ac.):	2,024	Max. Depth (m):	4.6	Flushing Rate (yr ⁻¹)	46.1
Surface Area (Ac.):	19	Mean Depth (m):	1.1	P Retention Coef:	0.36
Shore Length (m):	1,350	Volume (m ³):	81,000	Elevation (ft):	830

TROPHIC CLASSIFICATION

Year	Trophic class
1999	MESOTROPHIC

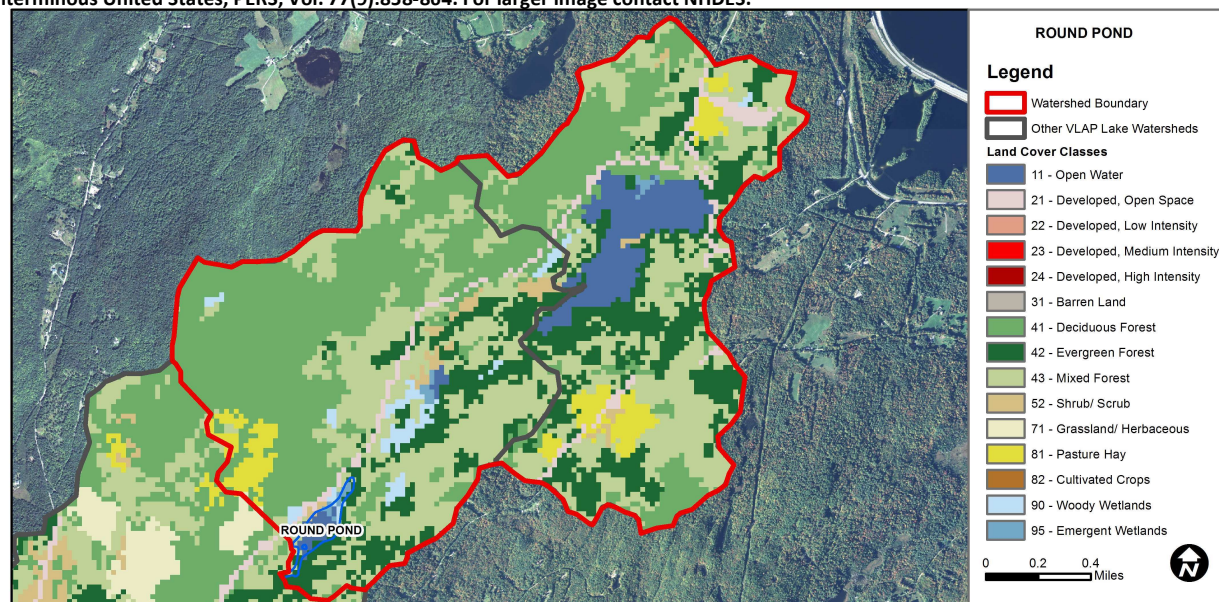
KNOWN EXOTIC SPECIES

The Waterbody Report Card tables are generated from the 2012 305(b) report on the status of N.H. waters, and are based on data collected from 2001-2011.

Designated Use	Parameter	Category	Comments
Aquatic Life	Phosphorus (Total)	Slightly Bad	>/=5 samples and median is >threshold.
	pH	Very Good	At least 10 samples with 0 exceedances of criteria.
	D.O. (mg/L)	Encouraging	< 10 samples and no exceedance of criteria. More data needed.
	D.O. (% sat)	Slightly Bad	>10% of samples exceed criteria by a small margin (minimum of 2 exceedances).
	Chlorophyll-a	Slightly Bad	>5 samples and median is > threshold.
Primary Contact Recreation	E. coli	No Data	No Data for this parameter.
	Chlorophyll-a	Slightly Bad	>10% of samples exceed criteria by a small margin (minimum of 2 exceedances).

WATERSHED LAND USE SUMMARY

Fry, J., Xian, G., Jin, S., Dewitz, J., Homer, C., Yang, L., Barnes, C., Herold, N., and Wickham, J., 2011. Completion of the 2006 National Land Cover Database for the Conterminous United States, PERS, Vol. 77(9):858-864. For larger image contact NHDES.



Land Cover Category	% Cover	Land Cover Category	% Cover	Land Cover Category	% Cover
Open Water	5.39	Barren Land	0	Grassland/Herbaceous	0.02
Developed-Open Space	2.99	Deciduous Forest	33.79	Pasture Hay	3.75
Developed-Low Intensity	0	Evergreen Forest	17.92	Cultivated Crops	0
Developed-Medium Intensity	0	Mixed Forest	32.47	Woody Wetlands	1.62
Developed-High Intensity	0	Shrub-Scrub	1.21	Emergent Wetlands	0.4



VOLUNTEER LAKE ASSESSMENT PROGRAM INDIVIDUAL LAKE REPORTS

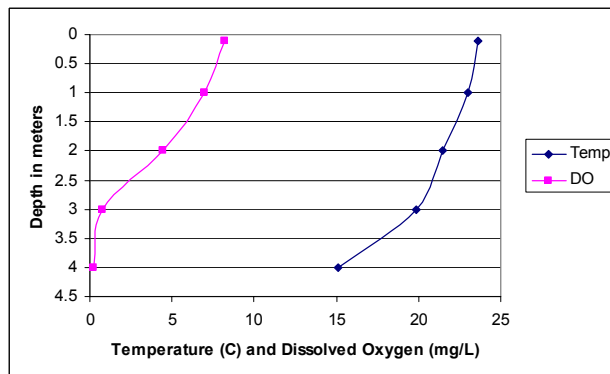
ROUND POND, LYMAN, NH

2012 DATA SUMMARY

OBSERVATIONS AND RECOMMENDATIONS (Refer to Table 1 and Historical Deep Spot Data Graphic)

- CHLOROPHYLL-A:** Chlorophyll levels decreased again in 2012 and were the lowest measured since monitoring began. We hope to see this continue.
- CONDUCTIVITY/CHLORIDE:** Deep spot and tributary conductivity levels were slightly greater than the NH lake median.
- TOTAL PHOSPHORUS:** Deep spot phosphorus levels were stable throughout the summer and were approximately equal to the NH lake median. Inlet phosphorus was slightly elevated in June and turbidity was also elevated after a significant rain event.
- TRANSPARENCY:** Transparency increased slightly in July, and has been relatively stable since monitoring began.
- TURBIDITY:** Inlet and Outlet turbidities were slightly elevated in June after a significant rain event.
- pH:** pH levels were sufficient to support aquatic life.
- RECOMMENDED ACTIONS:** Turbidity levels increased in the tributaries after a significant rain event indicating potential erosion and sedimentation in the watershed. Dirt roads may be a factor and it is recommended to work with road agents to mitigate stormwater erosion. The U.S. Forest Services' "Environmentally Sensitive Road Maintenance Procedures for Dirt and Gravel Roads" is a good reference. Keep up the great work!

Dissolved Oxygen & Temperature Profile



Station Name	Table 1. 2012 Average Water Quality Data for ROUND POND							
	Alk.	Chlor-a	Cond.	Total P	Trans.		Turb.	pH
	mg/l	ug/l	uS/cm	ug/l	m		ntu	
					NVS	VS		
Deep Epilimnion	27.5	4.35	74.2	12	2.48	2.80	1.00	7.20
Deep Hypolimnion			67.0	12			1.22	6.95
Inlet			83.4	15			1.48	7.00
Outlet			72.6	10			1.15	7.15

NH Median Values: Median values for specific parameters generated from historic lake monitoring data.

Alkalinity: 4.9 mg/L

Chlorophyll-a: 4.58 mg/m³

Conductivity: 40.0 uS/cm

Chloride: 4 mg/L

Total Phosphorus: 12 ug/L

Transparency: 3.2 m

pH: 6.6

NH Water Quality Standards: Numeric criteria for specific parameters. Results exceeding criteria are considered a water quality violation.

Chloride: < 230 mg/L (chronic)

E. coli: > 88 cts/100 mL – public beach

E. coli: > 406 cts/100 mL – surface waters

Turbidity: > 10 NTU above natural level

pH: 6.5-8.0 (unless naturally occurring)

HISTORICAL WATER QUALITY TREND ANALYSIS

Parameter	Trend	Explanation
Chlorophyll-a	N/A	Ten consecutive years of data necessary for trend analysis.
Transparency	N/A	Ten consecutive years of data necessary for trend analysis.
Phosphorus (epilimnion)	N/A	Ten consecutive years of data necessary for trend analysis.

This report was generated by the NH DES Volunteer Lake Assessment Program (VLAP). For more information contact:
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Historical Deep Spot Chlorophyll-a, Epilimnetic Total Phosphorus & Transparency Data

